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The Cancer Control Challenge:
Better Understanding It to Better Face It

EPIDEMIOLOGICAL OVERVIEW OF MORTALITY FROM MYELOID LEUKEMIA IN THE NORTHERN REGION OF BRAZIL (2019–2023)

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Introduction: Myeloid leukemia (ML) is defined as the neoplastic transformation of hematopoietic cells of the myeloid lineage. It can be classified into two main types: chronic, which involves the proliferation of mature cells, and acute, which is characterized by the proliferation of progenitor cells. Acute myeloid leukemia (AML) accounts for 15% to 20% of childhood acute leukemia cases and is responsible for approximately 30% of deaths in this population. Although AML incidence increases with age, the disease has a high complete remission rate in children, reaching approximately 90% of cases. Chronic myeloid leukemia (CML), on the other hand, primarily affects older adults. According to the National Cancer Institute (INCA), between 2020 and 2022, 10,810 new leukemia cases were reported in Brazil, with 15% classified as CML. **Objectives:** To assess mortality patterns of myeloid leukemia in the Northern Region of Brazil from 2019 to 2023. **Methods:** This is a descriptive, retrospective epidemiological study on mortality due to myeloid leukemia in the Northern Region of Brazil. Data were extracted from the Mortality Information System (SIM), accessed via the TABNET platform provided by DATASUS. The analysis included the following variables: ICD-10 category C92, geographic region (North), federative unit, year of death, age group, sex, and race/skin color from 2019 to 2023. **Results:** A total of 924 deaths from myeloid leukemia were recorded in the Northern Region of Brazil between 2019 and 2023, representing a 7% increase compared to the previous five-year period, which reported 859 deaths. The majority of deaths occurred in the states of Pará (42.8%, n=396) and Amazonas (19.2%, n=172), followed by Rondônia (12.8%, n=119), Tocantins (11.4%, n=106), and the states of Acre, Amapá, and Roraima, each with less than 7% of cases. Regarding sex distribution, males accounted for 55.4% (n=511) of deaths. In terms of race/skin color, 66.3% (n=612) of individuals were brown, 24.8% (n=229) white, 4.4% (n=40) Black, 1.1% (n=10) Indigenous, and 0.5% (n=4) Asian, reflecting the region's predominant ethnic

profile. Patient age ranged from 1 year to over 80, with the highest prevalence among individuals aged 60–69 and 70–79, representing 32.4% (n=299) of deaths. **Conclusion:** From 2019 to 2023, the Northern Region of Brazil experienced a 7% increase in myeloid leukemia mortality, totaling 924 deaths. Most occurred in the states of Pará and Amazonas, likely due to their larger populations and greater capacity for diagnosis and reporting. Deaths were more frequent among men, brown-skinned individuals, and the elderly, particularly those aged 60 to 79 years. These findings underscore the need for targeted public health strategies aimed at the prevention and control of myeloid leukemia in this region.

Keywords: Myeloid leukemia; epidemiology; mortality.